

IN THE SPECIFICATION:

Kindly amend page 3, lines 1-17 as follows:

~~The feature of Claims 2 and 9 allow for use of~~ In one aspect of the invention, a readily determinable movement characteristic ~~which can still advantageously be~~ employed for controlling the mode of processing of the incoming spread spectrum signal in a manner for improving the performance of the receiver and thus the GPS in which it is employed.

~~The features of Claims 3, 4, 10 and 11 represent~~ In still other aspects of the invention, a further advantageous movement characteristic ~~that can readily be determined and that can particularly be~~ employed in combination with a threshold velocity value so as to provide for a threshold at which the processing mode can be switched in accordance with the present invention. In still other aspects of the invention, ~~Such an arrangement is further enhanced by the feature of Claims 4 and 10 in which a stationery, i.e. zero~~ velocity, movement characteristic is identified since the greatest improvement in performance within the receiver can then be readily attained. In still other aspects of the invention, ~~The feature of Claims 6, 8, 13 and 15 is advantageous in that the signal tracking aspects of the processing of the incoming spread spectrum signal have greatly improved stability and weaker signals can be tracked successfully. The feature of Claims 7 and 14 can also prove advantageous in assisting with the detection of a weak signal.~~

Kindly amend page 4, line 6 as follows:

Fig. [[1]] 2 shows, schematically, the architecture of a GPS receiver 1A according to the present invention. NAVSTAR SPS GPS signals are received by an antenna 10 and pre-processed in a pre-processor 11; typically by passive bandpass filtering in order to minimise out-of-band RF interference, preamplification, down conversion to an intermediate frequency (IF) and analog to digital conversion. The resultant, digitised IF signal remains modulated, still containing all the information from the available satellites, and is fed into a memory 12 (termed taking a "snapshot"). From the memory 12, the samples may be fed at any time later into each of a series of parallel receiver channels 13. The use of the memory 12 is not essential for automotive GPS receivers and so the IF signal could alternatively be fed directly into the receiver 13. The satellite signals are acquired and tracked in respective digital receiver channels in co-operation with the receiver processor 14 for the purpose of acquiring pseudorange information. Such methods for acquisition and tracking are well known, for example, see chapter 4 (GPS satellite signal characteristics) & chapter 5 (GPS satellite signal acquisition and tracking) of GPS Principles and Applications (Editor, Kaplan) ISBN 0-89006793-7 Artech House. Using acquired pseudorange information and the time of arrival of the transmissions, the navigation processor 18 calculates the position of the receiver using conventional algorithms and that position is displayed on a display 19 to the user.

Kindly amend page 6, line 6 as follows:

Fig. [[2]] 3 shows, schematically, an embodiment of a receiver channel 20 such as that 13 of FIG. 1 co-operating with the receiver processor in greater detail. In order to retrieve pseudorange information from the signal samples stored in the memory 12, a carrier wave must be removed and this is done by the receiver generating in-phase (I) and quadrature phase (Q) replica carrier wave signals using a carrier wave generator 21. A carrier wave phase lock loop (PLL) is normally employed to accurately replicate the frequency of the received carrier wave. In order to acquire code phase lock, early (E), prompt (P) and late (L) replica codes of the PRN sequences are continuously generated by a code generator 22. The replica codes are then correlated with the [[1]] I and Q

signals to produce three in-phase correlation components ($I_{\text{sub.E1}}$, $I_{\text{sub.L1}}$, $I_{\text{sub.P}}$) and three quadrature phase correlation components ($Q_{\text{sub.E1}}$, $Q_{\text{sub.L1}}$, $Q_{\text{sub.P}}$), typically by integration in an integrator 23 over substantially the whole of the PRN code. In the receiver processor 14, a code phase discriminator is calculated as a function of the correlation components and a threshold test applied to the code phase discriminator. A phase match is declared if the code phase discriminator is high and if not, the code generator produces the next series of replicas with a phase shift. A linear phase sweep will eventually result in the incoming PRN code being in phase with that of the locally generated replica and thus code acquisition.